

WHAT IS CLAIMED IS:

1. A lithographic printing plate precursor comprising a support having a hydrophilic surface having provided thereon an image-forming layer containing a hydrophobic high molecular compound having at least either a functional group represented by formula (1) or a functional group represented by formula (2):



wherein  $\text{X}^+$  represents an iodonium ion, a sulfonium ion or a diazonium ion.

2. A lithographic printing plate precursor comprising a support having a hydrophilic surface having provided thereon an image-forming layer containing a hydrophobic infrared ray absorber having at least either a functional group represented by formula (1) or a functional group represented by formula (2):



wherein  $\text{X}^+$  represents an iodonium ion, a sulfonium ion or a diazonium ion.

3. The lithographic printing plate precursor as claimed in claim 1, wherein the image-forming layer contains a compound having at least either a functional group represented by formula (3) or a functional group represented by formula (4):



wherein R<sup>1</sup> and R<sup>2</sup> each represents a hydrogen atom, an alkyl group, an aryl group, an alkynyl group or an alkenyl group; R<sup>3</sup> represents an alkyl group, an aryl group, an alkynyl group or an alkenyl group; R<sup>4</sup> represents a hydrogen atom, an alkyl group, an aryl group, an alkynyl group or an alkenyl group; either R<sup>5</sup> or R<sup>6</sup> represents a hydrogen atom and the other represents a hydrogen atom, an alkyl group, an aryl group, an alkynyl group or an alkenyl group; and arbitrary two of R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> may form a ring, and arbitrary two of R<sup>4</sup>, R<sup>5</sup> and R<sup>6</sup> may form a ring.

4. The lithographic printing plate precursor as claimed in claim 2, wherein the image-forming layer contains a compound having at least either a functional group represented by formula (3) or a functional group represented by formula (4):



wherein  $R^1$  and  $R^2$  each represents a hydrogen atom, an alkyl group, an aryl group, an alkynyl group or an alkenyl group;  $R^3$  represents an alkyl group, an aryl group, an alkynyl group or an alkenyl group;  $R^4$  represents a hydrogen atom, an alkyl group, an aryl group, an alkynyl group or an alkenyl group; either  $R^5$  or  $R^6$  represents a hydrogen atom and the other represents a hydrogen atom, an alkyl group, an aryl group, an alkynyl group or an alkenyl group; and arbitrary two of  $R^1$ ,  $R^2$  and  $R^3$  may form a ring, and arbitrary two of  $R^4$ ,  $R^5$  and  $R^6$  may form a ring.